

# Document details

< Back to results | 1 of 11 | Next >

[↗ Export](#)
[↓ Download](#)
[🖨 Print](#)
[✉ E-mail](#)
[💾 Save to PDF](#)
[★ Add to List](#)
[More... >](#)

[View at Publisher](#)

ECTI-CON 2018 - 15th International Conference on Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology  
 18 January 2019, Article number 8619878, Pages 176-179  
 15th International Conference on Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology, ECTI-CON 2018; Wiang Inn HotelChiang Rai; Thailand; 18 July 2018 through 21 July 2018; Category numberCFP1806E-ART; Code 144486

## Effect of faults on electrical equipment in power substation: A case study of metropolitan electricity authority's power system (Conference Paper)

Siriwithayathanakun, P., Sriyanyong, P.  
 Department of Teacher Training in Electrical Engineering, King Mongkut's University of Technology North Bangkok, Thailand

### Abstract

This paper studies the influence on electrical equipment and the frequency disturbance caused by the Line to Line Fault in the power system. This study takes the actual situation at Metropolitan Electricity Authority (MEA)'s substation which is 115 V power transmission line. The study examines the voltage and the frequency changes occurring in the power system by using MEA's power system simulation with Transient Program (ATP-EMTP) used in the 115 V power transmission line, Line to Line Fault, at 10 km approximately occurs at Y-B phase. As a result of the power system simulation, the Voltage Waveform is changed and shifted. It resulted in the frequency decreases. The lowest frequency of B phase is about 41.578 Hz ort 16.844% when compared to the power system frequency at 50 Hz and resulted in a maximum voltage phase R is 25.9 kV or increase 87.5%. © 2018 IEEE

### SciVal Topic Prominence ⓘ

Topic: Electric grounding | Lightning | grounding impedance

Prominence percentile: 85.407 ⓘ

### Author keywords

[ATP-EMTP](#)
[Load Shedding](#)

### Indexed keywords

Engineering controlled terms:

[Electric lines](#)
[Electric power transmission](#)
[Power transmission](#)

Engineering uncontrolled terms

[ATP-EMTP](#)
[Electrical equipment](#)
[Frequency disturbances](#)
[Line to line fault](#)
[Load-shedding](#)
[Power substations](#)
[Power system frequencies](#)
[Power system simulations](#)

Engineering main heading:

[Electric load shedding](#)

ISBN: 978-153863555-1  
 Source Type: Conference Proceeding  
 Original language: English

DOI: 10.1109/ECTICon.2018.8619878  
 Document Type: Conference Paper  
 Publisher: Institute of Electrical and Electronics Engineers Inc.

### Metrics ⓘ

0 Citations in Scopus  
 0 Field-Weighted Citation Impact



PlumX Metrics ⓘ  
 Usage, Captures, Mentions, Social Media and Citations beyond Scopus.

[View references \(9\)](#)

Cited by 0 documents

Inform me when this document is cited in Scopus:

Set citation alert >

Set citation feed >

### Related documents

- Insulation coordination of HV equipment in 115 kV AIS substation: Case study in Thailand
 

Srisongkram, W. , Fuangpian, P. , Suwanasri, T. (2016) *CMD 2016 - International Conference on Condition Monitoring and Diagnosis*
- Application region of frequency relays for distributed generation
 

Zeineldin, H.H. (2008) *IEEE Power and Energy Society 2008 General Meeting: Conversion and Delivery of Electrical Energy in the 21st Century, PES*
- A scheme based on ANNs for single-phase fault location in distribution systems with DG
 

Petite, F.S.V. , Caneloi Dos Santos, R. , Asano, P.T.L. (2017) *2017 IEEE Manchester PowerTech, Powertech 2017*

View all related documents based on references

Find more related documents in Scopus based on:

[Authors >](#)
[Keywords >](#)